DRAFT STATEMENT OF WORK

FOR THE

AVIATION SAFETY REPORTING SYSTEM (ASRS) AND RELATED SYSTEMS

April 2009

I. INTRODUCTION

The National Aeronautics and Space Administration (NASA) operates and manages the Aviation Safety Reporting System (ASRS). The mission of the ASRS is to acquire information concerning current and potential deficiencies in the operational performance of the National Aviation System, and to maximize effective use of that information to further aviation safety and system planning. The ASRS has two primary aspects: one deals with the maintenance and operation of a voluntary, confidential incident-reporting program that, by agreement with the Department of Transportation's Federal Aviation Administration (FAA), complements the FAA's Aviation Safety Reporting Program (ASRP). The other aspect of the ASRS program deals with research and development using the incident reports to support improvements in the performance and safety of the future aviation system. Because of the ASRS program, and its nationally and internationally recognized reputation as the proof-of-concept of an effective and trusted model for confidential safety reporting, other Government agencies and system safety domains have requested NASA's assistance in establishing new systems of confidential reporting. In 2000, the Department of Veterans Affairs (VA) established an agreement with NASA Ames Research Center to create, initiate and manage a Patient Safety Reporting System (PSRS) that will complement the VA's National Center for Patient Safety (NCPS) efforts to improve patient safety. Additionally, other reporting systems in other domains have been proposed based on the ASRS model. As requirements associated with these developments materialize, they shall be incorporated into this contract.

II. GENERAL REQUIREMENTS

The Contractor shall operate ASRS, PSRS, and other potential reporting systems.

The requirements of this Statement of Work shall be accomplished by issuance of Contract Task Orders (CTOs).

A. Facility

1. Location - The Contractor shall provide a facility within 10 miles of the Main Gate of NASA Ames Research Center, Moffett Field, California. This proximity requirement is due to the high amount of interaction between the Contractor personnel and the NASA personnel, programs, and facilities at Ames Research Center. Examples of the required interactions include the daily pickup of mail from the official ASRS and PSRS P.O. Box mailing addresses at the Moffett Field Post Office; Expert Analyst advice in many of the aviation research areas under study by the Human Factors & Research Technology Division, Code T and Code A at NASA Ames Research Center; and the NASA Program Director/Deputy Director have Division and Center duties which require frequent travel between the two locations.

2. Facility Requirements - The Contractor shall provide secure office space that shall ensure that sensitive information can be shared within the office space, but also isolated and protected as needed. The facility shall have a functioning security system as approved in the ASRS and Related Systems Security Plan. In addition, Expert Analysts shall have the capability to make phone calls in an environment that ensures privacy and confidentiality. Any identifying phone records shall be kept confidential, with access granted in accordance with the ASRS and Related Systems Security Plan and handled in accordance with Incident File Maintenance and official Government Record Retention Schedules.

The Contractor facility shall provide two on-site meeting rooms for simultaneous small meetings (6 person) and large meetings (15-20 person). These rooms shall have easy access to reporting systems hardcopy reference publications and materials.

3. Visitors - Due to the unique and successful operation of the ASRS over the past 34 years, NASA often sponsors both international and domestic, Government and non-Governmental, visitors to view and study the operation of ASRS. The Contractor shall provide a courtesy workspace, in compliance with the ASRS and Related Systems Security Plan, for these occasional NASA-approved visitors. The Contractor shall provide controlled accessibility to visitors and maintain records of the visitors, in accordance with the Contractor's ASRS and Related Systems Security Plan.

4. Liaison Offices - The Contractor shall provide individual, secure office space for at least two NASA personnel directly related to the ASRS, PSRS, and other related programs. This office space shall permit unrestricted access to the Contractor facility. The office space provided to the NASA personnel shall be equal to the Contractor personnel performing equivalent tasks. Unless otherwise supplied by the Government, the Contractor shall provide telephone service and office supplies for the NASA personnel. NASA's reputation and responsibility for the services provided by these highly visible programs requires continuous liaison in the daily operation of the programs.

B. Information Technology

1. Server Requirements - The Contractor shall maintain all system databases on a server(s) running Oracle 8.17 or higher (i.e., 9.2, 10.2).

2. COTS Software - The Contractor shall provide commercial off-the-shelf software (COTS) as needed to respond to NASA research and project requests. Some current software examples are: Microsoft Office, Microsoft Access, Filemaker, and Adobe Acrobat/Illustrator. NASA shall notify the Contractor when upgrade versions or additional software requirements are needed.

3. Custom Interface Tools for COTS Software - Oracle database software is used as the basis for the ASRS, PSRS, and related systems' databases. Oracle is COTS software provided by the Government. Custom interface tools, used by the analysts,

have been developed over the past few years to facilitate and enhance the use of the Oracle software. These interface tools include the Analysts Workbench and related components tool, the Multiple Report Matching tool, InDesign, Brio, the Web Query tool, and website development and maintenance tools. These interface tools have evolved and been improved incrementally over time and it is expected that they will continue to evolve and improve. The Contractor shall provide the development efforts for these interface tools on an as-needed basis as directed by NASA Interface tools are considered to be administratively controlled information and subject to the non-disclosure, handling and other obligations of Clauses H.5, *Management and Protection of Data*, and H.6, *Handling of Data*.

4. Security - The Contractor shall provide a secure environment for all computer hardware, software, and networks as specified in the ASRS and Related Systems Security Plan.

5. Extensions and Enhancements - The Contractor shall be expected to perform relevant tasks related to the modernization and enhancement of the reporting systems to produce long-term efficiencies in report processing and to make the ASRS and PSRS databases of de-identified information more accessible and integrated with other safety resources. These enhancements include an on-going evaluation and refinement of the capability for secure electronic submission of reports, electronic information sharing, automated text search, and data management analysis software tools (e.g., Analysts Workbench software). Additionally ASRS is receiving reports from airline Aviation Safety Action Programs (ASAP). Currently 104 ASAP programs are participating. Several ASAP systems are currently evolving from paper submission to electronic data transmission between the airline programs and ASRS.

C. Personnel - In order to preserve the integrity and the perception of independence of the ASRS and PSRS program, staff members must be dedicated employees of the program. For example, ASRS staff members shall not be concurrently employed by any associated aviation agencies, organizations, or businesses to avoid conflict-of-interest, unless specifically approved by NASA for each individual. In addition, all staff members shall sign non-disclosure agreements (NDA) to protect the confidentiality of all reporting data and information. This same requirement applies to staff members of PSRS and any other related system for their associated medical connections and domain specific concerns. It is the responsibility of the Contractor to maintain the NDA documents and make them available to the COTR upon request. Each person hired by the Contractor and/or its subcontractors shall be required to satisfactorily pass a background screening conducted by NASA Ames' Office of Protective Services for approved government badge requirements.

1. Program Managers - The Contractor shall provide a Program Manager for each specific system (i.e., ASRS, PSRS, etc.). The Contractor's Program Managers shall provide overall contract management of the Contractor's efforts and shall provide a responsible interface with the Government. The Program Managers shall be expected to have skills and experience in their specific domains to credibly represent the reporting systems programs to Government and industry organizations.

2. Expert Analysts - The Contractor shall ensure that the Expert Analysts for each reporting system have a minimum of 10 years of professional experience within his/her specific domain. The Contractor shall maintain within its facility a resume for each of its analysts and professional staff that may be reviewed by the Contracting Officer (CO) or the Contracting Officer's Technical Representative (COTR).

a. ASRS Expert Analysts - In the aviation environment of the ASRS, the following aviation operational areas shall be supported: Commercial Airline (14 CFR Part 121 and Part 135), General Aviation (14 CFR Part 91, private, multi-engine, and corporate), Air Traffic Control, Maintenance, and Cabin Operations. The qualifications of the aviation Expert Analysts shall include, but not be limited to, the following: certificated pilots (representing airline transport pilots, commercial, and general aviation); FAA certified air traffic controllers (Center, TRACON, and Tower); licensed maintenance technicians (14 CFR Part 121, Part 135, Part 65); and professional flight attendants. The aviation Expert Analysts shall be familiar with the documentation and regulations addressing the Aviation Safety Reporting System (Advisory Circular # 00-46 & 14 CFR 91.25), all current Federal Aviation Regulations, maintenance regulations (14 CFR 121.369 Aircraft Maintenance Manual Requirements), and FAA Controller Handbook (7110.65), as applicable. One aviation Expert Analyst shall serve as the ASRS Alert Message Coordinator.

b. PSRS Expert Analysts - In the medical environment of the PSRS, the Contractor shall provide Expert Analysts with experience suitable to evaluate medical incidents in the following medical operational areas: medical procedures and standards of practice, nursing, surgery, pharmacy, laboratory, radiology, physical therapy, dietary, behavioral medicine, biomedical engineering, hospital organization, medical safety, and quality assurance. The qualifications of the medical Expert Analysts shall include, but not be limited to, the following: licensed medical physicians, licensed registered nurses, licensed pharmacists, and biomedical engineers. The medical Expert Analysts shall be familiar with documentation and legal requirements of the Department of Veterans Affairs, Veterans Health Administration which cover the Patient Safety Reporting System (38 USC 5705), all current VA policies for medical, pharmaceutical, laboratory, radiology, biomedical engineering, etc., as applicable. One medical Expert Analyst shall serve as the PSRS Safety Message Coordinator.

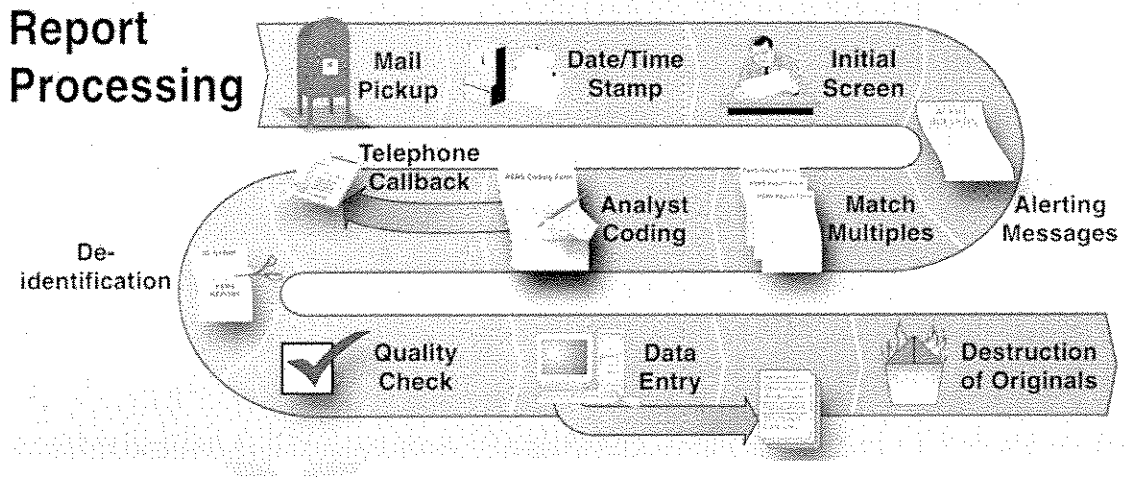
3. Publications Personnel - The Contractor shall provide personnel with skills in research methodology, basic statistics, writing, editing, desktop publication, computer graphics, and presentation design.

4. Information Technology Personnel - The Contractor shall provide personnel demonstrating knowledge and capabilities in the areas of very large database management, computer sciences, information technology, statistical analyses, security, and database exploration. The Contractor shall provide services encompassing a variety of technical functions. These shall include internet/intranet site maintenance, network troubleshooting, database coordination, system security checks, maintenance

of a reference library, coordination of support services, and technical support for Macintosh, Windows, and ORACLE.

III. Operation and Maintenance of ASRS and Related Systems

The Aviation Safety Reporting System is a voluntary process wherein pilots, air traffic controllers, cabin crew, mechanics, and any other individual associated with the operation of the aviation system may report aviation incidents or potential safety hazards. This is the model of confidential reporting that is replicated for the new reporting system in medical safety. This model system includes the processing of reports, the analysis of data, the operation and maintenance of the database, and presentation of findings based on the accumulated data. Confidentiality of the reporter is a critical element of the system's success. The Contractor shall, at all times during the performance of this contract, protect and preserve the confidentiality of the reporter and any third party references (e.g., airline company, medical facility, names of other individuals involved, etc.). For aviation, this is a legal requirement as expressed in FAA Advisory Circular 0046-D and 14 CFR 91.25. The generic production flow chart of the current report processing methodology is presented below. Unless otherwise stated, the processes described in this section apply to each of the reporting systems. In the instances where a process may differ among the reporting systems, these are noted in the descriptions provided here.



A. Reporting Forms - For ASRS, the incident reports are submitted by pilots, air traffic controllers, etc., on NASA Forms ARC 277 A-D, but may be submitted in an alternative form when ARC 277 is not available. The PSRS/NASA Form F6 is used for incident reporting to PSRS. The reporting forms can be accessed electronically on the respective web sites: ASRS at http://asrs.arc.nasa.gov/ and PSRS at http://psrs.arc.nasa.gov/. The Contractor shall handle reporting forms inventory, distribution tracking, and restocking requests. The Government provides printing and mailing of reporting forms.

B. Electronic Submission and Mail Pickup of Reporting Forms - The PSRS/NASA Form F6 is used for incident reporting to PSRS. The reporting forms can be accessed electronically on the respective web sites: ASRS at http://asrs.arc.nasa.gov/ and PSRS at http://psrs.arc.nasa.gov/. The Contractor shall handle reporting forms inventory, distribution tracking, and restocking requests. The Government provides printing and mailing of reporting forms.

C. Date Stamping Reporting Forms - Upon receipt, the Contractor shall date stamp each report with that day's date using the Government-provided automated date stamp or electronic facsimile developed for this purpose. This date stamp shall appear in the upper right hand corner of the ID portion of the forms. The ASRS date stamp emblem is identifiable for FAA inspection as proof of timely submission. The PSRS date stamp emblem is identifiable as proof of submission.

D. Report Tracking System - The Contractor shall maintain a tracking system that provides the current status of each incident report as it is processed through the system. This tracking system shall meet the following objectives:

1. Permit identification of each reviewer and handler throughout the processing stages,

2. Continue each program's report numbering in succession from the previous year's reports, utilizing the Accession Number (ACN) system previously established, and

3. Numerically identify incident reports, but not the ID strip, in order to maintain the confidentiality of the reporter (i.e., no ACN on ID strip).

E. Incident Report Screening and Classification - The Contractor shall read and evaluate each report for classification into defined, predetermined categories. The Contractor shall ensure that this screening is accomplished by Expert Analysts with experience in the relevant functional area of the report content. The Contractor shall complete the screening of each incident report no more than three working days after electronic or Post Office Box receipt of the incident report (excluding weekends and holidays). The screening process shall involve not less than two separate Expert Analyst reviews. The screening and classification processes for ASRS and PSRS reports are described in the following paragraphs.

1. ASRS - For the ASRS, the Contractor shall screen each incident report for classification into the following categories that are described below.

a. Full Form - Reports selected for Full Form processing are input into the appropriate database following analysis by Expert Analysts. The percentage of Full Form reports expected to be analyzed, processed and entered into the ASRS database shall be a target formulated by NASA and the Contractor, which at this time is approximately 20% of the total reports received per year. It is a Government goal to

increase this percentage with efficiencies in processing. In 2007, the total number of ASRS reports received was 45,603. In 2008, the total number of ASRS reports received was 50,405. The types of reports that are processed for Full Form analysis are described below:

i. Mandatory – This is 100% of the incident reports describing events related to bolded items in the Analysts Workbench software, for example, Near Mid Air Collision, Ground Conflict Severe, Controlled Flight Toward Terrain, etc., have been agreed upon between NASA and the FAA to be processed into the database.

ii. Alert Messages: Alert Bulletins and For Your Information - Any report released as an Alert Message shall be chosen for Full Form processing. These reports describe significant aviation hazards, have accident prevention potential, or may describe lesser severity incidents that may be appropriate as safety notices. The Contractor staff of Expert Analysts identifies these reports during screening. (See further description below).

iii. Discretionary - Incident reports which are of educational and illustrative value, items identified as subjects of special study, or items representing emerging trends in the aviation community are also processed as Full Form reports. This set includes, but is not exclusive to, special topics of safety concerns identified by NASA in consultation with the FAA, NTSB, and industry groups; reports labeled for selected studies (e.g., Structured Callback, Quick Responses, and Topical Research); and those chosen by ASRS Expert Analysts based on reports of exceptional educational or informative value.

b. Alert Messages - There are two potential categories of Alert Messages: Alert Bulletin (AB) or For Your Information notices (FYI). Either category may additionally be selected for presentation at the NASA ASRS/ FAA Telecon. The ASRS Alert Message Coordinator determines from the screened reports tagged as potential alerts whether a report is an AB, FYI, and/or Telecon. The AB category is reserved for those events determined to be significant potential safety hazards. The FYI category is for those events determined to be of a lesser severity, but important as safety information to be distributed to those parties involved in a potential solution. The AB and FYI categories are mutually exclusive, but can overlap with NASA/FAA Telecon items. One report or a collection of reports, describing a safety issue of concern, can trigger an Alert Message. An incident, if not identified in the screening process, can be brought into the Alert Message process at any stage of analysis. The reasons any potential report is determined to be inappropriate as an Alert Message shall be documented in a status log for future reference.

After initial selection from the screening process, the ASRS Alert Message Coordinator performs a preliminary evaluation to determine if additional information is needed to evaluate the incident report and if the report warrants an alert. If it is determined that the report shall be developed as an AB or FYI, the ASRS Alert Message Coordinator shall refer the report immediately to the Expert Analysts for analysis and attempt to contact the reporter for confirmation and ancillary

information. A data search of the incident database and other appropriate data sources shall be performed to retrieve relevant information. No efforts to gather additional information from sources other than the incident reporter may identify NASA or ASRS as the requester of information as this may compromise the reporter's identity. The Contractor shall be responsible for reporter and third party confidentiality. Any conflict or question concerning confidentiality shall be given to the NASA ASRS/PSRS Director or Deputy Director for resolution within 24 hours of discovery of the confidentiality issue.

Any "time critical" reports (processing required in less than 30 calendar days), as determined by the Expert Analysts, shall be given to the NASA ASRS/PSRS Director or Deputy Director within 24 hours of identification.

If a report is selected for inclusion as an Alert Message, the ASRS reporter of the incident shall be informed by a letter from NASA. After the reporter has completed and returned the lower portion of the NASA letter, the reporter shall be informed of any responses that NASA receives concerning the incident.

c. Criminal - Reports describing events that would be codified under Title 18 of the United States Code of Federal Regulations shall be given immediately to the NASA ASRS Director or Deputy Director.

d. Accident - Reports describing events that would be classified as accidents under the jurisdiction of Subparts A & B, NTSB 830 and contained in the Aeronautical Information Manual shall be given to the NASA ASRS/PSRS Director or Deputy Director for disposition. An incident report presumed to be an "accident" shall be verified by comparing it to the NTSB on-line accident files (http://www.ntsb.gov/aviation/aviation.htm). If it is found in the NTSB lists as a preliminary or final investigation, the report shall be given to the NASA ASRS/PSRS Director or Deputy Director. If it is not found in the NTSB on-line files and it is presumed by the Contractor Expert Analysts that the report describes an accident, the report shall be given to the NASA ASRS/PSRS Director or Deputy Director within 5 working days of identification. Any other reports shall be returned for processing.

e. Screen Only - The Contractor shall treat all reports not classified into one or more of the above categories as subject to temporary storage. The Contractor shall retain all reports classified as Screen Only for a period of 6 months and return the reporters' ID strips as specified below.

2. PSRS - For the PSRS, the Contractor shall screen each incident report for classification into the following categories which are described below:

a. Full Form - Reports selected for Full Form processing are input into the appropriate database following analysis by Expert Analysts. The PSRS analysts are currently processing 100% of total reports as Full Form. This percentage shall be modified as needed by the NASA ASRS/PSRS Director or Deputy Director. The total number of PSRS reports received as of January 2009 is approximately 850.

i. Patient Safety Messages – There are two potential categories of Patient Safety Messages: Patient Safety Bulletin (PSB) or For Your Information Notices (FYI). The PSRS Safety Message Coordinator determines from the screened reports tagged as potential safety messages whether a report is a PSB or FYI. The PSB category is reserved for those events determined to be significant potential safety hazards. The FYI category is for those events determined to be of a lesser severity, but important as safety information to be distributed to those parties involved in a potential solution. The Contractor shall provide a review of all incident reports classified as potential Patient Safety Messages. These reports describe significant medical hazards and have prevention potential. The Contractor staff of medical Expert Analysts identifies these reports during screening.

After initial selection from the screening process, the PSRS Safety Message Coordinator, a person with extensive background in the medical area or procedure identified in the report, shall perform a preliminary evaluation to determine if additional information is needed to evaluate the incident report and if the report warrants a PSB/FYI. If it is determined that the report shall be developed as a PSB/FYI, the PSRS Safety Bulletin Coordinator shall refer the report immediately to the Expert Analysts for analysis and possible contact with the reporter for confirmation and ancillary information. A data search of the incident database and other appropriate data sources shall be performed to retrieve relevant literature and information. No efforts to gather additional information from sources other than the incident reporter may identify NASA or PSRS as the requester of information as this may compromise the reporter's identity. The Contractor shall be responsible for reporter and third party confidentiality. Any conflict or question concerning confidentiality shall be given to the NASA ASRS/PSRS Director or Deputy Director for resolution within 24 hours of discovery of the confidentiality issue.

Any "time critical" reports (processing required in less than 30 calendar days as determined by the Expert Analysts) shall be given to the NASA ASRS/PSRS Director or Deputy Director within 24 hours of determination. PSB/FYI reports shall be discussed at the NASA PSRS/VA Telecon.

If a report is selected for inclusion as a PSB/FYI, the PSRS reporter of the incident shall be informed by a letter from NASA. After the reporter has completed and returned the lower portion of the NASA letter, the reporter shall be informed of any responses that NASA has received concerning the incident. One report or a collection of reports, describing a safety issue of concern, can trigger a PSB/FYI. An incident, if not optimally identified in the screening process, can be brought into the PSB/FYI process at any stage of analysis. The reasons a potential report may be determined to be inappropriate as a PSB/FYI shall be documented in a status log for future reference.

b. Criminal - Reports describing events that would be codified under Title 18 of the United States Code of Federal Regulations shall be given immediately to the NASA ASRS/PSRS Director or Deputy Director.

c. Other Excluded Events - Reports describing intentional unsafe acts that would be under jurisdiction of 38 USC 5705 (e.g., alcohol/substance abuse, impaired provider, and alleged or suspected patient abuse) shall be given to the NASA ASRS/PSRS Director or Deputy Director within 5 working days of identification.

F. Multiple Report Matching - The Contractor shall match all submitted reports on the same incident into an incident record for further analysis and processing. The Government shall provide the Multiple Report Matching software program currently used to accomplish this requirement. The Contractor shall capture the relevant information required by the software necessary to complete the matching process. Typically, 20% of ASRS incident reports received can be matched (e.g., a Captain report matched with a First Officer report on the same aviation incident). In rare cases, several reports will be received on the same incident from the flight crew, cabin crew, mechanic, and air traffic control. Once these separate reports are matched, they become an incident record. Incident records are the completed files entered into the database. Retention of the Multiple Report Matching data for the ASRS Internal Screening Dataset is captured in limited data fields for 100% of all reports. Multiple Report Matching applies to the PSRS also.

G. Incident Report Analysis - Following report screening and multiple report matching, the Contractor's Expert Analysts shall analyze the incident report and capture the data provided in the report(s), information gathered in their analysis, and the analyst's evaluation. The analysis report shall be coded into the existing ASRS or PSRS database fields. During the process of analysis, the analysts shall consult all relevant aviation or medical references (e.g., Jeppesen Charts, aircraft manuals, FDA MAUDE, ECRI, etc.). The analyst reference material is largely available through the on-line Analysts Workbench software; however, some reference material requires a monthly or annual subscription that is the responsibility of the Contractor. The analysts shall perform a telephone callback to the incident reporter to obtain any additional information or status of the incident, as necessary. The Contractor shall assure that the conduct of telephone callbacks to incident reporters follows the approved Telephone Conduct Plan. If the reporter is not available, a collect call to the analyst is provided to

the incident reporter. Typically, the rate of telephone callbacks for the ASRS is less than 10% of all Full Form reports. The PSRS is performing telephone callbacks at 100% of report collection.

H. De-Identification of Data - Database reports shall be de-identified by removing any information that could lead to the identification of the incident reporter (e.g., reporter name, any third party references, airline name, flight numbers, incriminating location identification, medical facility or VA VISN, date, time, proper names, potential identification from aircraft make/model classification, etc.). Information such as the location and aircraft make/model is usually retained when relevant to the understanding of the incident occurrence; however, there are exceptions to protect reporter identity as directed by the NASA ASRS/PSRS Director or Deputy Director, as appropriate. Proper de-identification to protect the reporter is the first priority. On all reports, regardless of processing classification, the identification information (top ID portion of the NASA form with the NASA date stamp) is returned to the report's initiator as determined by the address provided by the incident reporter. Following the ID strip de-cap and de-identification of the contents of the report, the processed data shall be prepared for database entry.

No efforts to gather additional information from sources other than the incident reporter may identify NASA or ASRS/PSRS as the requester of information as this may compromise the reporter's identity. The Contractor shall be responsible for reporter and third party confidentiality. Any conflict or question concerning confidentiality shall be given to the NASA ASRS/PSRS Director or Deputy Director for resolution within 24 hours of discovery of a confidentiality issue.

I. ID Strip Return - The Contractor shall return the date stamped ID strip to the reporter after analysis is completed. The Contractor shall return to the reporter the ID strip within the following time standards (working days), unless requested sooner by the reporter and concurrence is obtained from the NASA ASRS/PSRS Director or Deputy Director, as appropriate. Deviations from these standards will be discussed with NASA ASRS/PSRS Director.

Type of Reports	Return No Sooner Than	Return No Later Than
Screened only	14 days	21 days
Full reports	30 days	60 days
Alert reports	30 days	60 days

If a reporter contacts ASRS or PSRS for return of their ID strip, every attempt shall be made to locate the original report. Once the person who is requesting the ID strip is verified to be the reporter of the incident report through previously established protocols and addressed in the ASRS and Related Systems Security Plan, the ID strip shall be returned to the reporter at the address provided on the ID strip. No alternate address can be used. Permission shall be obtained from the reporter to keep a copy of the ID strip for any remaining processing steps, at which time his/her name identification would be destroyed. No photocopy of an ID strip is allowed.

The Contractor shall accomplish the ID strip mailing through the U.S. Mail using NASA window envelopes showing the reporter's address from the ID strip. The Government is responsible for postage and handling. Included with the ID strip for the ASRS is the NASA ASRS Director's cover letter, the "ASRS Operating Rules" sheet, e-notification sign up information for CALLBACK newsletter, a report submission information sheet, and if a paper report submissions, an additional blank ARC 277 forms appropriate to the reporter (i.e., an ARC 277A for an air traffic controller, an ARC 277B for a pilot or other reporter, an ARC 277C for a cabin crewmember, or an ARC 277D for a maintenance reporter). Included with the ID Strip for the PSRS is the NASA PSRS Director's cover letter, the most recent *Feedback* newsletter, a sign up strip for the Feedback mailing list, and additional blank NASA PSRS Form.

The Contractor shall retain all original reports and tracking records for a specified period of time under secure procedures.

J. Database Entry - The Contractor shall enter the ACN, coding, narrative, analysis, and any other appropriate information from each report processed as an incident record. The Contractor shall assure accuracy, completeness, and quality of data entry. The overall standards of database records shall assure that the database is current to the following standard of calendar days:

Type of Reports	Entered No Sooner Than	Entered No Later Than
Full-Form	60 days	90 days

Therefore, data would be available for public release, search requests and/or quick response only after the above criteria are met. The NASA ASRS/PSRS Director or Deputy Director will approve any earlier release of theses records. The quality of the database records shall be maintained at 95% accuracy for content, coding, and keying errors. The Contractor's Quality Assurance Plan shall address these requirements.

K. Incident File Maintenance - The Contractor shall retain and maintain all original incident reports, attached graphics, phone records, and any other identifying logs for a period as specified by Government Records Retention Schedules. Report tracking records describing the staff member(s) who had contact with the report or reporter shall be maintained throughout the life of the programs. The Multiple Report Matching (MRM) files shall be retained no longer than 60 calendar days for the purpose of matching. Following the MRM process and a final de-identification, the limited data fields for every ASRS report shall be retained in the ASRS Internal Screening Dataset. The PSRS reports shall be processed and maintained under identical procedures. The ASRS Alert Message log and PSRS PSB/FYI log shall be retained throughout the life of the programs. The Contractor shall maintain these files in a secure area at the Contractor's facility or suitable secure, off-site location approved by NASA. The Contractor shall also maintain the files in a manner such that individual reports can be accessed and reviewed readily if necessary. The Contractor shall provide limited access to these maintained files so that only personnel authorized in accordance with the Contractor's ASRS and Related Systems Security Plan are granted access. The Contractor shall box report materials, seal the boxes, and contact NASA Ames

Research Center Document Control for pick-up and destruction at the end of the appropriate retention periods.

L. Data Storage, Database Security, and Retrieval - The Contractor shall provide the capability necessary for the uninterrupted, secure operation of a data storage and database system for all reporting systems. The minimum expected capability requirement shall provide for the data input, data storage, and rapid retrieval of processed data. The system shall be capable of providing a method for the performance of routine and special searches of the processed incident data. The Contractor shall configure the system utilizing the Government-provided software in a manner that shall permit direct access to the incident database by the NASA ASRS/PSRS Director and Deputy Director for internal purposes. The Contractor shall be required periodically to send a properly formatted copy of the ASRS De-Identified Database to those organizations and individuals authorized by NASA. The Contractor shall maintain all reporting databases for the length of the period of performance and provide the databases at the completion of the contract in a form consistent with the operability specified in this document. PSRS information is only released through the express written permission of the NASA ASRS/PSRS Director or Deputy Director.

1. The Contractor shall be solely responsible for the security of all materials entrusted to the Contractor. The Contractor shall address, as part of the ASRS and Related Systems Security Plan, a description of ASRS, PSRS, and other systems security requirements, which shall ensure the integrity of the databases. In addition to data security provisions mentioned above, the Contractor shall not release or disseminate any information regarding ASRS, PSRS, or other systems without the expressed written approval of the NASA ASRS/PSRS Director or Deputy Director, as appropriate review is required.

The Contractor shall provide facility access to the appointed members of the NASA ASRS Advisory Committee - Security Members and NASA PSRS Executive Council for periodic unannounced security evaluations. Currently, the ASRS Advisory Committee - Security Members represents the confidential interests of pilot, air traffic controller, cabin crew, and maintenance reporters.

2. The Contractor shall adequately back-up all data every 24 hours. The back-up medium shall be located at a secure location away from the main Contractor facility to avoid any damage that may result from fire, earthquake, flood, or other disasters. This shall be addressed in the Contractor's Contingency Plan.

IV. Research and Use of the Anecdotal Databases

The Contractor shall prepare research and operational reports, with NASA ASRS/PSRS Director or Deputy Director's authorization, in response to requests from the FAA, VA, NASA, NTSB, and other users of the ASRS and PSRS data. These requests shall include, but not be limited to, scientific and technical reports, safety newsletters, an

annual report of each program's operations, requests for specific information from the de-identified databases, publications and articles for use in safety and other educational programs. The Contractor, in consultation with NASA, shall formulate Report formats and mechanisms for dissemination.

A. Search Requests - The Contractor shall receive database search requests for routine and special studies of the ASRS and PSRS from a variety of requesters. The Contractor shall perform ASRS database computer searches in response to these requests after consultation with the NASA ASRS/PSRS Director or Deputy Director. Requests for PSRS data shall be forwarded to the NASA ASRS/PSRS Director or Deputy Director. The data available for such studies shall include the data received and processed under this contract as well as the historical data received prior to this contract. For the ASRS, the Contractor shall submit the data searches to the NASA ASRS/PSRS Director or Deputy Director within 10 calendar days of the request. Upon approval, the Contractor shall e-mail or mail to the requester the requested data within 2 weeks of the request. The requested data is usually emailed in an Adobe PDF format, but may be provided on computer disk, or printed and bound for mailing by special request. In FY06, the ASRS Database became available online at the ASRS website. Therefore, direct requests for data have decreased. The current download sessions of data from the ASRS Database Online (DBOL) are at a rate of 18,587 for 2008. PSRS search requests are being released to VA participants only due to 38USC5708 data protection provisions.

1. External - All external requests for data shall be forwarded to the NASA ASRS/PSRS Director or Deputy Director. These requests may be generated from the ASRS/PSRS web sites, request letters, or via telephone. All ASRS releasable de-identified data is available online. However, if a FOIA requests is received, it shall be forwarded to NASA ASRS/PSRS Director or Deputy Director.

2. Internal - All requests for data originating within the ASRS or PSRS offices are included in this category. These may be in conjunction with special studies, alert messages, presentation material development, or publication preparation.

B. Quick Responses - The Contractor shall receive requests for special studies of data. All such requests shall come through the NASA ASRS/PSRS Director or Deputy Director. The Contractor shall design and perform analytic studies in response to these requests. These requests may be larger efforts than a database search request and are generally limited to the FAA, NTSB, Congress, VA, NASA, etc. These requests may be large or small in scope and vary in style and format. These Quick Response efforts are individually tailored to the requester needs. The data available for such studies shall include that received and processed under this contract, as well as all data previously processed and stored.

C. Topical Research – Periodic requests for research on specific topics shall be made by the FAA, NTSB, NASA, etc to NASA ASRS/PSRS Director and will be

approved and discussed with the Contractor concerning expected product, as defined in CTO's.

V. Program Deliverables

Deliverables include a variety of scheduled and unscheduled meetings, reports, and publications with various time limits and due dates for the ASRS and PSRS. The Contractor shall provide the appropriate personnel to write, format, edit, and produce any publications. The Contractor shall provide draft publications to the NASA ASRS/PSRS Director or Deputy Director for review and approval prior to publication. The Contractor shall provide an editor to ensure continuity for publications such as CALLBACK and *Feedback*. The Contractor shall maintain a specific e-mail list of website subscribers that have provided their e-mail address for e-notification of ASRS CALLBACK. The Contractor shall maintain a mailing list for PSRS *Feedback* newsletter for distribution of each issue. The Government shall be responsible for postage and handling.

A. Meetings and Teleconferences

1. Monthly Program Briefings - The Contractor shall brief the Government monthly on the progress of each reporting system (ASRS and PSRS) at the Contractor's facilities and staff these meetings with the Contractor Program Manager and appropriate staff, as necessary, to address relevant agenda items.

Timeline: The Government provides the agenda a minimum one day prior to the scheduled briefings.

2. NASA ASRS/FAA Teleconferences - The items to be included in the monthly telecon with the FAA, AFS-230, and other interested parties are determined by the Contractor Program Manager, ASRS Alert Message Coordinator, and the NASA ASRS/PSRS Director or Deputy Director. This determination is made by selecting incidents of interest in Alert Messages that can be presented in a timely manner to stakeholders. The potential corrective action or solution of these events is determined to be most effectively addressed by the FAA or could involve the FAA. The telecon includes presentation materials in Power Point format illustrating the important points of each item and is transmitted to participants via a web-based connection and Government provided phone access. Typically, the telecons are 1 hour in length and are held the second Thursday of each month at 11:00 AM (Pacific) from the Contractor's facility. Four to six items of fully de-identified materials are typically addressed in the time allotted. The telecon agenda includes information updates since the last telecon. The agenda for this telecon is written by the Contractor and approved by NASA. The minutes from the last telecon are included in a complete package sent to the FAA. The Contractor's ASRS Alert Message Coordinator and appropriate Expert Analysts shall attend the telecon to present and address relevant agenda items on ABs and FYIs.

Timeline: The Contractor shall submit the agenda to the NASA ASRS/PSRS Director or Deputy Director for approval no later than 7 calendar days prior to the meeting. The Contractor subsequently shall send the approved telecon package via email to the FAA - ASRP Program Manager. This telecon package includes the agenda, de-identified reports of agenda items, and minutes of the last telecon.

3. NASA PSRS/VA Teleconferences - The items to be included in the telecon with the VA National Center for Patient Safety (NCPS) are determined by the PSRS Program Manager and the NASA ASRS/PSRS Director or Deputy Director. This determination is made by selecting incident items for which it has been determined that a potential solution could be most effectively addressed by the VA or could involve the VA NCPS. Typically, the telecons are 1 hour in length. The PSB/FYI items are fully de-identified. The telecon agenda includes all information, background and literature research performed for the validation of the PSB/FYI. The agenda for this telecon is written by the Contractor and approved by NASA.

Timeline: The Contractor shall submit the agenda to the NASA ASRS/PSRS Director or Deputy Director for approval no later than 7 calendar days prior to the meeting. The Contractor subsequently shall send the approved telecon package via email to the VA. This telecon package includes the agenda, de-identified reports of agenda items, and minutes of the last telecon.

4. NASA ASRS Committee Meetings - The Contractor shall provide staff and meeting materials for the NASA ASRS Committee meetings. This is a Committee to the NASA Headquarters, which functions under the Federal Advisory Committee Act (FACA). These meetings typically occur twice a year, generally in the spring and the fall. The meetings are located within the US, often Washington DC. The Contractor's support shall include the Contractor's ASRS Program Manager, recorder, and additional staff, as needed to address relevant agenda items.

Timeline: NASA shall submit the agenda and guidelines for the preparation of meeting materials to the Contractor no later than two weeks prior to the meeting. The Contractor shall provide the final meeting materials to NASA for approval no later than 3 working days prior to the meeting date. The Contractor shall record and provide draft minutes of the meeting to NASA no later than two weeks following the meeting. Contractor shall provide meeting planning and timely notification of meeting participants per NASA direction.

5. FAA and VA Semi-Annual Meetings - The Contractor shall provide staff and meeting materials for the NASA/FAA semi-annual meetings and the NASA/VA NCPS semi-annual meetings. The meetings are located at NASA Ames Research Center, Washington DC or Ann Arbor, MI. The Contractor's support shall include the Contractor's ASRS or PSRS Program Manager, as appropriate, and additional staff, as needed, to address relevant agenda items.

Timeline: NASA shall submit a draft agenda to NASA two weeks prior to the meeting. NASA shall provide guidelines for the preparation of meeting materials to the Contractor no later than seven calendar days prior to the meeting. The Contractor shall provide the final meeting materials to NASA for approval no later than 3 working days prior to the meeting. The Contractor shall record and provide draft minutes of the meetings to NASA no later than two weeks following the meetings.

6. International Confidential Aviation Safety Systems (ICASS) Meetings - The Contractor shall provide staff and meeting materials for the ICASS meetings. When the ASRS is not the host, the Contractor shall provide meeting materials as requested. When the ASRS is the host of this meeting (approximately once every 3 years), the Contractor's support shall include the participation of the Contractor's ASRS Program Manager and additional staff, as needed, to address relevant agenda items and meeting requirements.

Timeline: For the ASRS-hosted meetings, the Contractor shall provide meeting planning and timely notification of meeting participants. NASA shall submit an agenda one month prior to the meeting. NASA shall provide guidelines for the preparation of the meeting materials to the Contractor no later than two weeks prior to the meeting. The Contractor shall provide the final meeting materials to NASA for approval no later than 3 working days prior to the meeting date.

7. Air Traffic Procedures Advisory Committee (ATPAC) - The Contractor shall provide one staff member highly qualified in ATC regulations and procedures to participate as an ASRS representative to the quarterly Air Traffic Procedures Advisory Committee (ATPAC) meetings. The NASA ASRS/PSRS Director will approve the staff member selected prior to attendance. The Contractor staff shall prepare material on recent incidents or patterns reported to the ASRS concerning air traffic issues.

Timeline: The Contractor shall provide any ASRS material intended for these ATPAC meetings to the NASA ASRS Director or Deputy Director for approval no later than one week prior to the meeting dates.

8. PSRS Executive Council - The Contractor shall provide staff and meeting materials for the NASA PSRS Executive Council meetings. These meetings typically occur twice a year. The meetings are located within the US. The Contractor's support shall include the Contractor's PSRS Program Manager, recorder, and additional staff, as needed to address relevant agenda items.

Timeline: Contractor shall submit the agenda and guidelines for the preparation of meeting materials to the Contractor no later than two weeks prior to the meeting. The Contractor shall provide the final meeting materials to NASA for approval no later than 3 working days prior to the meeting date. The Contractor shall record and provide draft minutes of the meeting to NASA no later than two weeks following the meeting. Contractor shall provide meeting planning and timely notification of meeting participants per NASA direction.

9. Unscheduled Meetings – Since meetings often arise on an ad hoc basis, he NASA COTR shall inform the Contractor of the level of support required and the location of the meeting with NASA or special visitors. These meetings shall be conducted at either NASA Ames or the Contractor's facility. Other unscheduled meetings shall be planned in advance and may require travel. The NASA COTR shall provide no less than 3 calendar days notification of the requirements for these unscheduled meetings. Any unanticipated meeting attendance beyond historical levels (approximately 20 per year) shall be addressed by CTO requests.

B. Reports

1. ASRS and Related Systems Security Plan - The Contractor shall develop, implement, and maintain a security plan. The ASRS and Related Systems Security Plan shall address at a minimum the issues identified in the Minimum Security Considerations. This ASRS and Related Systems Security Plan requirement is in addition to the requirement described in NASA FAR Supplement 1852.204-76, Security Requirements for Unclassified Information Technology Resources.

Timeline – The final, approved ASRS and Related Systems Security Plan is due to the Government no later than 20 days after contract award.

2. Annual Reports - The Contractor shall provide annual reports to NASA on each reporting system. These reports shall provide summaries of the previous calendar year's activities and any other related program activity, performance and output, details of problems encountered or anticipated, staffing levels, security issues, and information regarding system costs.

Timeline: The ASRS draft is due to NASA by January 31. The PSRS draft is due to NASA by January 5. If the due date falls on a weekend, the draft is due the previous Friday. After NASA approval, the final document shall be due on or before 14 working days following approval.

3. Contingency Plan - The Contractor shall develop a Contingency Plan to address the actions that would be necessary to assure accessibility and preservation of the ASRS, PSRS, and other databases in the event of a catastrophe. The plan shall accomplish the requirement of providing a reinstated database at 98% of pre-catastrophic condition. The full recovery of the databases is expected within 1 week of downtime. The recovery procedures addressed in the Contingency Plan shall be demonstrated to NASA 30 days after contract award and annually thereafter.

Timeline: The Contingency Plan shall be given to the NASA ASRS/PSRS Director or Deputy Director for approval no later than 30 days after contract award.

4. Telephone Conduct Plan - The Contractor shall develop a set of guidelines for analysts' telephone conduct prior to conducting programmatic phone calls. These guidelines shall include who contacts the reporters, how the analysts identify themselves to the reporter, how messages are left at work or home for a return collect phone call, and how reporters' collect calls are handled once received. This plan shall include Contractor staff guidelines concerning telephone and direct communication with media, lawyers, general public, NASA, FAA, NTSB, VA, and other Government agencies. These inquiries shall be forwarded to the NASA ASRS/PSRS Director or Deputy Director, as appropriate. Upon NASA approval, the Contractor shall educate the staff on this conduct and the importance of confidentiality protections. This training is mandatory and shall be renewed every 6 months.

Timeline: This plan is due for NASA approval 2 weeks after award.

5. Quality Assurance Plan – This plan shall eventually be incorporated into the Contractor's Standard Operating Procedures Manual (SOP).

Timeline: Due for NASA approval 3 months after award.

6. Standard Operating Procedures Manual – The Contractor shall develop a manual which details the processes and procedures it follows to operate the ASRS and its related programs. It shall include many of the plans listed in this section.
ASRS Alert Message Database and Distribution - The Contractor shall prepare Alert Messages for distribution via email to appropriate parties listed on the Alert Message mailing list provided by Government. The size of the mailing list for each Alert Message varies with regard to the content of each message and its appropriate audience. A typical message shall involve approximately 1-2 addressees and 10 information copies. Each AB or FYI shall be addressed to a Government organization, a manufacturer, and/or others who have the authority to determine the validity of the issue being related in the Alert Message and provide a solution to prevent a reoccurrence of the event. Information copies shall be sent to the Government and industry organizations relevant to the alerted item as having potential safety value to their interests and ability to notify participants in the aviation system. The Contractor may receive responses from the alert message addressees, information copy organizations, or from the NASA ASRS Director or Deputy Director. The Contractor shall maintain and update the Alert Message Database that tracks status and responses to alerts. The Government shall provide the database structure for logging the current and continuing information. The Contractor shall classify all ABs and FYIs and all responses received according to the list provided. When a response is received, the de-identified responses shall be disseminated to the other original addressees and information copy organizations. The responder shall be identified only by organization, not name, within 1 week of receipt, upon concurrence of the NASA ASRS Director or Deputy Director. Any other requests for data contained in the Alert Message Database or the ABs and FYIs shall be released only with the concurrence of the NASA ASRS Director or Deputy Director.

Timeline: Due for NASA approval 8 months after award.

7. ASRS Alert Message Database and Distribution – The Contractor shall prepare Alert Messages for distribution via email to appropriate parties listed on the Alert Message mailing list provided by NASA. The size of the mailing list for each Alert Message varies with regard to the content of each message and its appropriate audience. A typical message shall involve approximately 1-2 addressees and 10 information copy addressees. Each AB or FYI shall be addressed to a Government organization, a manufacturer, and/or others who have the authority to determine the validity of the issue being related in the Alert Message and provide a solution to prevent a reoccurrence of the event. Information copies shall be sent to the Government and industry organizations relevant to the alerted item as having potential safety value to their interests and ability to notify participants in the aviation system. The Contractor may receive responses from the alert message addressees, information copy organizations, or from the NASA ASRS/PSRS Director or Deputy Director. The Contractor shall maintain and update the Alert Message Database that tracks status and responses to alerts, as appropriate. The Government shall provide the database structure for logging the current and continuing information. The Contractor shall classify all ABs and FYIs responses received according to the list. When a response is received, the de-identified responses shall be disseminated to the other original addressees and information copy organizations upon concurrence of the NASA ASRS/PSRS Director or Deputy Director. The responder shall be identified only by organization, not name, in tracking logs. Any other requests for data contained in the Alert Message Database or the ABs and FYIs shall be released only with the concurrence of the NASA ASRS/PSRS Director or Deputy Director.

Timeline: The Contractor shall determine the addressees, information copy organizations, and content summary of the Alert Message and provide this to the NASA ASRS/PSRS Director or Deputy Director for review and approval within 25 working days of report receipt. The Contractor shall assure that no AB or FYI is released prior to 30 calendar days from date of receipt without the concurrence and written approval of the NASA ASRS Director or Deputy Director.

8. Patient Safety Messages Database and Distribution – The Contractor shall prepare Patient Safety Messages for distribution to appropriate parties listed on the PSB/FYI mailing list predetermined in consultation with the NASA ASRS/PSRS Director or Deputy Director. The size of the mailing list for each PSB/FYI varies with regard to the content of each message and its appropriate audience. A typical message shall involve approximately 3-5 addressees and 10 information copies. Each PSB/FYI shall be addressed to a VA designated organization who has the authority to determine the validity of the issue being related in the incident information and potentially provide a solution to prevent a reoccurrence of the event. VA facilities and VISN organizations relevant to the PSB/FYI item have a role in assessing safety and have the ability to notify participants in the VA medical system. The Contractor may receive responses from the PSB/FYI addressees, information copy organizations, or from the NASA ASRS/PSRS Director or Deputy Director. The Contractor shall maintain and update the Patient Safety Messages database that tracks status and responses to these

messages. The Government shall provide the database structure for logging the current and continuing information. The Contractor shall classify all Patient Safety Messages and all responses received according to the list. When a response is received, the responses shall be disseminated to the other original addressees and information copy organizations upon concurrence of the NASA ASRS/PSRS Director or Deputy Director. The responder shall be identified only by organization, not name, in the tracking logs. Any other requests for data contained in the Patient Safety Messages database shall be released only with the concurrence of the NASA ASRS/PSRS Director or Deputy Director.

Timeline: The Contractor shall determine the addressees, information copy organizations, and content summary of the Patient Safety Messages and provide this to the NASA ASRS/PSRS Director or Deputy Director for review and approval within 25 working days of the report receipt or the appropriate timeline as specified in the PSB/FYI Flow. The Contractor shall assure that no PSB/FYI is released prior to 30 working days from date of receipt without the concurrence of the NASA ASRS/PSRS Director or Deputy Director.

9. ASRS and PSRS Web Pages – The Contractor shall maintain the ASRS Home Page (http://asrs.arc.nasa.gov/) and the PSRS Home Page (http://psrs.arc.nasa.gov/). The current structure and contents shall be maintained and updated with new information as it becomes available (e.g., CALLBACK monthly issues and periodic *Feedback* issues). The "ASRS Data Report Sets" shall be renewed every 6 months with the most current and relevant database information. These Data Report Sets shall require NASA ASRS/PSRS Director or Deputy Director approval prior to uploading. Any requests for ASRS or PSRS information, database searches, etc., from the "Contact Us" feature on these sites shall be referred to the NASA ASRS/PSRS Director or Deputy Director. Any changes to the architecture, content, or layout of the web site shall be submitted to the NASA ASRS/PSRS Director or Deputy Director for approval.

C. Publications

1. ASRS CALLBACK – CALLBACK is a monthly newsletter produced in collaboration with the Contractor's editor, analysts, staff, and NASA ASRS/PSRS Director or Deputy Director. This publication is published with desktop software within the Contractor's operation. This product shall continue to be produced in the current style, format, content, and quality.

Timeline: The draft of the content shall be given to the NASA ASRS/PSRS Director or Deputy Director for review on the 15th of each month. The final layouts are due by the 25th of each month. Following NASA approval, each issue shall be made available electronically on the ASRS website and e-notifications will be sent to current email subscriber list.

2. PSRS *Feedback* – *Feedback* is a quarterly newsletter produced in collaboration with the Contractor's editor, analysts, staff, and the NASA

ASRS/PSRS Director or Deputy Director. This publication is published under a GPO contract. All technical specifications are expressed in the document, *Feedback* GPO Requirements. This product shall continue to be produced in the current style, format, content, and quality.

Timeline: The draft of the content shall be given to NASA ASRS/PSRS Director or Deputy Director for review on the 15th of each month, and the final layouts are due by the 25th of each month. The current mailing list has approximately 30,000 entries. These issues are available electronically on the PSRS website.

END of SOW Draft